

## NEW PHILIPPINE HYMENOPTERA<sup>1</sup>

By J. C. CRAWFORD  
(Washington, D. C.)

### · CHALCIDIDÆ

*Leucospis pulchellus* sp. nov.

*Female*.—Length, 7 mm. Black, the first 3 abdominal segments red; spot on front of scape, transverse band on anterior edge of pronotum and 1 near posterior margin, a small spot on middle of propodeum at apex, a line on middle of metapleuræ, a small spot on each side of first abdominal segment, a line on each side of third segment, a line on anterior tibiæ outwardly, middle tibiæ except narrow brown stripe inwardly, a line on upper outer margin of hind femora which at base extends downward to first tooth on lower margin, a line on hind tibiæ outwardly, and on first 2 joints of hind tarsi, ivory yellow; face finely vertically rugulose, above antennal fossa more coarsely transversely rugulose; on each side of face a swelling just below upper end of antennal fossa; pro- and mesonotum closely coarsely punctured, punctures on mesoscutum arranged so that the interspaces in places form indistinct transverse rugæ; metanotum, propodeum, and pleuræ with punctures similar to those on mesonotum; propodeum with median and lateral longitudinal carinæ; wings dark brown; lower margins of hind femora with a tooth followed apicad by 2 or 3 much longer ones, then several smaller semifused teeth; abdomen closely punctured, the punctures on the first segment sparse, separated from each other by about two or more times a puncture width; ovipositor reaching almost to base of third abdominal segment, the groove for its reception not quite reaching base of segment; the second abdominal segment medially longitudinally carinate, the first segment toward apex exceedingly indistinctly carinate, being more angulate than carinate.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (C. F. Baker). Type No. 18401, United States National Museum.

*Leucospis bakeri* sp. nov.

*Female*.—Length, about 7 mm. Black, with red and yellow markings, the ovipositor not reaching the base of the third ab-

<sup>1</sup> Proof read by C. F. Baker.

dominal segment, the apical two-thirds of which is deeply furrowed for its reception; head, thorax, and abdomen coarsely rugoso-punctate, the head black, the antennæ ferruginous, dusky above, the scape yellow; pronotum with 2 broad yellow stripes, the anterior margin reddish, the 2 yellow stripes separated by a black stripe bordered with reddish; posterior margin almost hyaline, slightly tinged with reddish; pronotum with 2 transverse carinæ, the anterior one short, at about the middle of the black stripe, the posterior one at the middle of the posterior yellow stripe and extending to the lateral margins; mesonotum black with the lateral margins yellow, and a large subquadrate reddish spot on the disk extending to the apex of the scutum; anteriorly the corners of this reddish spot are yellow; scutellum with the apical margin narrowly reddish and just cephalad of this a transverse yellow mark; somewhat U-shaped; metanotum with a semicircular carinated medial elevation, this apically with a median depressed area, carinated at sides, elevation projecting over propodeum slightly at middle; metanotum medially reddish and with a median yellow spot; propodeum coarsely punctured and with a median longitudinal carina; wings infuscated, more so along anterior margins, near apex with a darker spot; tegulæ and propectus reddish; metapleuræ yellow; coxæ black, the mid ones yellowish anteriorly at apex; hind coxæ with a large yellow basal spot above and 1 below at apex; fore and mid femora black, with the apical part yellow, their tibiæ yellow each with a brown stripe behind, that on the mid tibiæ small; hind femora outwardly black with the upper margin yellow and a large yellow spot below at base; lower margin with a large triangular tooth near middle and distad of this about 6 small teeth; first abdominal segment with 2 large yellow spots, second segment transverse, yellow except apical margin, third segment near middle with a yellow band which laterally widens posteriorly and reaches the apical margin of segment; fourth segment with 2 small spots, fifth with 2 larger spots, first, second, and third segments basad of the furrow for the ovipositor with a median longitudinal carina.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18402, United States National Museum.

*Pareniaca browni* sp. nov.

*Female*.—Length, about 3.5 mm. Black, the head and thorax coarsely rugoso-punctate, the antennæ and fore and mid legs, except coxæ, ferruginous; antennæ dusky at tips; hind legs, ex-

cept the whitish tarsi, black; first joint of funicle slightly longer than second, the pedicel about as long as these combined; wings almost hyaline, very faintly dusky; first segment of abdomen longer than broad, with 4 dorsal carinæ, second segment with 4 basal carinæ, these not as long as the first segment and extending less than one-sixth the length of the segment, second segment near apex with a punctured area on each side; following segments punctured at the sides.

*Male*.—Length, about 3 mm. Similar in color and structure to the female, but the first joint of the funicle shorter than the second; wings slightly more dusky than in the female; the petiole longer and more slender, the 4 dorsal carinæ more prominent; second segment with about 7 or 8 short carinæ.

LUZON, Manila (*R. E. Brown, S. J.*). Type No. 18403, United States National Museum.

*Pareniaca bakeri* sp. nov.

*Female*.—Length, about 3 mm. Black, the head and thorax coarsely rugoso-punctate; antennæ brown, the first joint of funicle slightly longer than broad, the pedicel slightly longer than first and second joints of funicle combined; wings hyaline, slightly whitish; fore and mid legs dark brown, the femora lighter at bases and the tibiæ lighter at apices, their tarsi testaceous; hind legs, except the testaceous tarsi, black; first segment of abdomen transverse, with 4 dorsal carinæ; second segment with 8 or 9 carinæ which are about three times as long as first segment, but not reaching middle of the segment; second segment with a punctured area near apex on each side; following segments with similar small areas.

*Male*.—Unknown.

LUZON, Manila (*R. E. Brown, S. J.*). Type No. 18404, United States National Museum.

The type and one paratopotype were collected by *R. E. Brown, S. J.*; two paratypes from Los Baños were collected by *Prof. C. F. Baker*, after whom the species is named.

#### PERILAMPIDÆ

*Perilampus luzonensis* sp. nov.

*Female*.—Length, 5 mm. Green, face with a strong carina extending down to level of insertion of antennæ, the space between the carina and the eyes coarsely punctured, sides of face below coarsely punctured, inner margins of parapsidal areas with a broad smooth band; scutellum slightly longer than mesoscutum,

the apex very slightly emarginate; legs green, the tarsi whitish testaceous; abdomen smooth, sides of the second segment very finely indistinctly punctured.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18405, United States National Museum.

*Perilampus punctiventris* sp. nov.

*Male*.—Length, about 3.5 mm. Head and thorax obscurely greenish, the middle lobe of mesonotum almost black, the abdomen black; face with a carina on each side which meet back of anterior ocellus; in front of the lateral ocelli and centrad of the carinæ along their upper ends a few fine punctures; between the ocelli the surface rugose, back of them transversely so; mesoscutum including outer part of parapsidal areas coarsely rugoso-punctate; broad inner part of parapsidal areas smooth, polished, posteriorly this area with a few fine wrinkles and along the inner margin a row of large shallow punctures; wings hyaline; legs green, the tarsi testaceous; abdomen with the first segment, except basally and a broad apical margin, closely, finely punctured; second segment at base with similar punctures.

*Female*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18406, United States National Museum.

The punctures on the abdomen distinguish this species.

#### PTEROMALIDÆ

*Cercocephala bakeri* sp. nov.

*Female*.—Length, about 1 mm. Head and thorax light reddish-brown with a slight metallic sheen; abdomen almost black, with æneous and purple reflections; antennæ testaceous, the last 2 joints of the funicle and the club dark brown; funicle 6-jointed, the first joint quadrate; pedicel as long as first 2 joints of funicle combined; entire insect, except the finely rugulose propodeum, smooth and polished; wings with a distinct violaceous luster, beyond the base of the marginal vein slightly infuscated; stigmated spot on submarginal vein with a tuft of dark hairs; legs testaceous; sheaths of ovipositor exposed about one-fourth the length of abdomen, whitish, with dark tips.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18407, United States National Museum.

Described from 4 specimens reared by Professor Baker from bark containing borers. This species differs from the de-

scribed species of the genus *Cercocephala* except *elegans* by having a tuft of dark hairs on the stigmated spot on the submarginal vein, and from *C. (Chætospila) elegans* Westwood in having 6 joints in the funicle.

#### ELASMIDÆ

*Elasmus elegans* sp. nov.

*Female*.—Length, about 2.25 mm. Head and thorax blue-green; abdomen elongate, somewhat longer than head and thorax combined, brown, with the basal third both above and below reddish, and with the extreme base above green; face with large, scattered punctures, those laterad of the antennal fossa arranged in 2 vertical rows; antennæ long, scape whitish, rest of antennæ brown, segments of funicle almost subequal in length, the first indistinctly longer than the pedicel, the last fully twice as long as widest diameter, and about two-thirds as long as club; mesoscutum rather closely punctured, each puncture having a dark-colored hair; scutellum finely and indistinctly reticulated; metanotum yellow, with a hyaline border; wings slightly dusky; hairs on legs black; fore legs, including coxæ, whitish, the coxæ beneath with 4 long setæ; tibiæ with longitudinal rows of hairs; mid coxæ and femora, except their apices, black; rest of mid legs whitish, the tibiæ and basal joints of tarsi with longitudinal rows of hairs; basal half of hind coxæ and apical half of hind femora almost black, rest of hind legs whitish; the tibiæ behind with rows of hairs arranged in diamond-shaped figures; basal joints of hind tarsi with longitudinal rows of hairs.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18408, United States National Museum.

This species resembles *E. philippinensis* Ashmead, but that species is much smaller, has the joints of the funicle much shorter, the hind coxæ except extreme apices dark, the hind femora entirely dark, etc.

*Elasmus lutens* sp. nov.

*Female*.—Length, about 2.25 mm. Yellow; ocellar triangle, a large triangular spot on rear of head extending from top of eyes almost to their bases and connected along carinate edge of occiput with ocellar spot, the axillæ, a small spot on side of propodeum, a large spot covering the upper part of hind coxæ, spots on the sides of abdominal segments at apices, all brown; toward apex of abdomen the spots become larger so

that the last 2 segments are almost entirely brown; rest of the dorsal surface of abdomen light brownish; face with large scattered punctures; antennæ brown, the scape yellowish white, its apex brown, the first joint of funicle slightly longer than pedicel; mesopleuræ centrally dark brown, shading off into lighter above and below; bristles on hind tibiæ arranged in diamonds.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18409, United States National Museum.

*Elasmus ashmeadi* sp. nov.

Length, about 1.5 mm. Yellow; the head above insertion of antennæ, pronotum medially, a narrow stripe on middle of mesoscutum widening caudad, scutellum, propodeum, base of abdomen, and spot on hind coxæ above, green; head with large scattered punctures; antennæ brown, the scape whitish, the first joint of the funicle longer than the pedicel; triangular plate on metanotum yellow at base, rest of the plate hyaline; mesopleuræ largely brownish; legs, including coxæ, yellowish white, the bristles on the hind tibiæ arranged in diamonds.

LUZON, Manila (*R. E. Brown, S. J.*). Type and only specimen No. 18410, United States National Museum.

#### EULOPHIDÆ

*Entedon magnus* sp. nov.

*Female*.—Length, about 3.25 mm. Head and thorax bronzy, the propodeum and abdomen at base bluish green, rest of abdomen aëneous; head and thorax coarsely reticulately rugose, on rear of head finer and more shallow, on middle of mesoscutum at rear coarser; antennæ brown, scape whitish, first joint of funicle twice as long as pedicel, second joint slightly longer than pedicel; propodeum smooth, shiny, with a median carina, on each side of which is a narrow depression running to the short neck; lateral grooves on propodeum with cross carinæ, the grooves somewhat resembling a chain of pits; coxæ aëneous, femora and basal half of tibiæ brown, the knees, apical halves of tibiæ, and tarsi, except apical joint, whitish.

*Male*.—Unknown.

LUZON, Laguna, Los Baños and Mount Maquiling (*C. F. Baker*). Type, from Los Baños, No. 18411, United States National Museum.

Described from 4 females from the type locality and 1 from

Mount Maquiling; 2 of the paratopotypes and the specimen from Mount Maquiling have the sculpture at rear of mesoscutum no coarser than the other.

*Entedon manilensis* sp. nov.

*Female*.—Length, about 2 mm. Green, more brilliantly so on propodeum and base of abdomen; apical margin of third abdominal segment and beyond, purple; head and thorax coarsely reticulately rugose, sculpture on rear of head much finer; antennæ brown, pedicel and base of funicle slightly greenish, the scape, except apex, whitish, first joint of funicle about one and one-half times as long as pedicel, second joint of funicle slightly longer than pedicel, the club about as long as first joint of funicle; propodeum smooth, shiny with a median carina reaching the short neck, lateral furrows with cross carinæ; a short spine on each side of propodeum back of the spiracle; coxæ aëneous, femora, except tips, brown, tibiæ and tarsi whitish, tibiæ near base with brown annulus, that on anterior tibiæ occupying about half the tibiæ, on mid and hind tibiæ not reaching beyond basal third.

*Male*.—Unknown.

LUZON, Manila (*R. E. Brown, S. J.*). Type No. 18412, United States National Museum.

This species resembles *E. magnus*, but is much smaller, the first joint of the funicle, is shorter, and tibiæ have a narrow brown annulus instead of the basal half or more being brown.

*Euplectrus flavescens* sp. nov.

*Female*.—Length, 2.5 mm. Yellow; middle lobe of mesoscutum, middle of scutellum, sides of axillæ and of metanotum, most of propodeum and pleuræ reddish honey color; the abdomen more or less suffused with the same color; antennæ brown, the scape and pedicel testaceous; joints of the funicle elongate, the first over twice as long as the pedicel, the club not longer than the last joint of funicle; pronotum and mesonotum irregularly rugose; the rugæ on scutellum finer than on mesoscutum, scutellum at base with 2 large foveæ; metanotum with a median longitudinal carina and on each side of it about 2 similar but indistinct carinæ, the apical margin subcarinate; basal lip of propodeum strongly produced; propodeum with a median and lateral carina, being areolated; legs yellow, the hind coxæ slightly tinged with reddish, first joint of hind tarsi almost one and one-half times as long as second joint; longer spur

of hind tibia reaching to apex of second joint of tarsi, the shorter spur about three-fourths as long as first joint.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18413, United States National Museum.

The complete areolation of the propodeum distinguishes this from the other species of the Oriental Region in which yellow is the predominating color.

*Euplectrus rugosus* sp. nov.

*Female*.—Length, about 2.5 mm. Black, the coxæ dark brown, the femora reddish honey color, rest of legs testaceous; antennæ light brown, the scape whitish, joints of the funicle elongate, the first almost twice as long as pedicel, the club slightly longer than last joint of funicle; pronotum and mesoscutum finely rugulose, the axillæ finely reticulately lineolate, the scutellum coarsely irregularly reticulately rugose, the apical margin subcarinate, metanotum with a short median carina extending caudad about half the length of metanotum then dividing and each branch extending laterad then caudad again, making a median apical fovea; propodeum with a median carina, the basal lip not very strongly produced; first joint of hind tarsi not quite one and one-half times as long as second, longer spur of hind tibiæ reaching almost to apex of second tarsal joint, shorter spur reaching about to base of apical fourth of first joint of tarsi.

*Male*.—Unknown.

LUZON, Laguna, Los Baños (*C. F. Baker*). Type No. 18414, United States National Museum.

This species resembles *E. bussyi* Crawford from Sumatra, but in that species the metanotum is smooth, the sculpture of the middle lobe of the mesoscutum is similar to, and almost as strong as, the sculpture of the scutellum, being in both cases reticulately rugose, whereas in *E. rugosus* the sculpture of the middle lobe of the mesoscutum is much finer and of a different type than that on the scutellum.